

# PROCESS OF FORMING FIELD EMISSION ELECTRODE FOR MANUFACTURING FIELD EMISSION ARRAY

## ABSTRACT OF THE DISCLOSURE

5       A process of forming a field emission electrode for manufacturing a  
field emission array is provided. The process includes steps of (a)  
providing a substrate having a metal layer thereon, (b) forming a  
plurality of mask units on the metal layer and partially removing the  
metal layer uncovered by the mask units, (c) oxidizing a surface of the  
10   remained metal layer by an anodic oxidization method for forming a  
metal oxide layer thereon such that an upper portion of the unoxidized  
remained metal layer is in the shape of plural conoids, and (d) removing  
the remained mask units and the metal oxide layer. Alternatively, the  
process includes steps of (a) providing a substrate having a first metal  
15   layer thereon, (b) forming a plurality of mask units on the first metal  
layer and partially removing the first metal layer uncovered by the mask  
units, (c) oxidizing a surface of the remained first metal layer by an  
anodic oxidization method for forming a metal oxide layer thereon such  
that an upper portion of the unoxidized remained first metal layer is in  
20   the shape of plural cylinders, (d) forming a second metal layer on the  
metal oxide layer, and (e) removing the remained mask units.